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| 09/964,232 | 09/26/2001 | Timothy E. Grib | HO-P02393US0 | 1841 |

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| EXAMINER | |
|---|---|
| SHIN, KYUNG H | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2143 | |

DATE MAILED: 07/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/964,232 | GRIB ET AL. | |
| | Examiner | Art Unit | |
| | Kyung H. Shin | 2143 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *04 May 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☒ Claim(s) *1-29* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

### *Response to Amendment*

1. This action is responding to application papers filed 5/4/2005.

2. Claims **1 - 29** are pending. Claims **1, 16, 21** have been amended. Independent claims are **1, 16, 21**.

### *Response to Arguments*

3. Applicant's arguments filed 5/4/2005 have been fully considered but they are not persuasive.

3.1 Applicant argues that the referenced prior art does not disclose " ... *conducting a first performance test of a first path using a performance test of a first type over a first path of the plurality of paths between the first and second devices ...* " (see Remarks/Arguments Page 8, Lines 26-28) and " ... *conducting a second performance test of a second path using a performance test of a first type over a second path of the plurality of paths between the first and second devices ...* " (see Remarks/Arguments Page 9, Lines 1-3).

Key features: ( 1) a performance test of network communications between two endpoints (i.e. a first and second device); (2) a particular path utilized for performance test of communications between two endpoints (i.e. first and second device); (3) a particular communications parameter (i.e. type) is

selected for performance test; (4) a plurality of paths for a path selection between two endpoints (i.e. a first and second device).

Mayton discloses: (1) a performance test between two endpoints (see Mayton col. 3, lines 48-50: performance measurements (i.e. tests) performed for a communications connection between a first and second device); (2) a particular route (i.e. a first or a second path) selected for communications between two endpoints (see Mayton col. 3, lines 48-54: particular route (i.e. first or second path) determined by the set of network devices defining the communications connection between endpoints (i.e. a first and a second devices)); (3) communications parameter selected for performance test (see Mayton col. 4, lines 26-28; col. 14, lines 7-11: different types of communications parameters used for performance measurements); (4) multiple routes (i.e. paths) between communications endpoints (i.e. a first and a second devices) (see Mayton col. 3, lines 28-32; col. 4, lines 3-5: multiple (i.e. plurality) routes (i.e. a first and a second path) between endpoints).

3.2 Applicant argues that the referenced prior art does not disclose " *... a performance test of each of the first and second transports networks ...* " (see Remarks/Arguments Page 9, Lines 4-6). Mayton discloses one or more transport layer protocols for data transmitted over a communications networks. (see Mayton col. 9, lines 38-41; col. 8, lines 62-63: one or more (i.e. first and second) transport protocols (i.e. TCP, UDP, RTP) for network data

communications)

3.3 Applicant argues that the secondary reference and primary reference combination is not allowed due to nonobviousness and lack of reason, suggestion, or motivation.

The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Furthermore, in response to applicant's arguments against the reference individually, one cannot show nonobviousness by attacking references individually where rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicant's arguments have thus been fully analyzed and considered but they are not persuasive. In response to Applicant's arguments, 37 CFR § 1.111(c) requires applicant to "clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made".

***Claim Rejection - 35 USC § 102***

The text of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. **Claims 1 - 9, 13, 15 - 29** are rejected under 35 U.S.C. 102(e) as being anticipated by **Mayton et al.** (US Patent No. 6,763,380).

**Regarding Claims 1** (Currently Amended), **16** (Currently Amended), Mayton discloses a method performed by one or more components in a network comprising a plurality of paths between a first device and a second device, the method comprising:

a) conducting a first performance test of a first path using a performance test of a first type (see col. 4, lines 26-28; col. 14, lines 7-11: communication types (i.e. a first type)) over the first path of the plurality of paths between the first and second devices; (see col. 3, line 66 - col. 4, line 5; col. 3, lines 48-54: network performance measurement test (i.e. a first test) for a route (i.e. a first path) from a plurality of routes (i.e. paths) between two network devices (i.e. a first and a second device))

b) conducting a second performance test of a second path using the performance test of the first type (see col. 4, lines 26-28; col. 14, lines 7-11: communication types (i.e. a first type)) over the second path of the plurality of paths between the first and second devices; (see col. 4, lines 5-9; col. 3, line 66 - col. 4, line 5; col. 3, lines 48-54: network performance test for a second route (i.e. a second path) between two network devices (i.e. a first and a second device))

c) wherein the first and the second performance tests are performed simultaneously or within a close time proximity. (see col. 3, lines 22-24: performance measurement tests completed on a scheduled basis (i.e. tests scheduled within close time proximity))

**Regarding Claims 2, 17**, Mayton discloses the method of claims 1, 16, wherein the first performance test produces a first set of results;

a) wherein the second performance test produces a second set of results; (see col. 3, lines 25-32: results are generated for multiple (first and second network devices) over multiple routings (paths)) and

b) further comprising presenting a service level performance comparison based on the first and second sets of results. (see col. 3, lines 40-46: performance factors (service level) such as poor performance from latency or communication outages)

**Regarding Claim 3**, Mayton discloses the method of claim 2, wherein the first performance test includes a plurality of first individual performance tests performed over an extended time duration; and the second performance test includes a plurality of second individual performance tests performed over the extended time duration. (see col. 3, lines 22-32; col. 3, lines 58-65: perform periodic repeated tests over a multitude of routings (paths) between two network devices over an extended time period)

**Regarding Claim 4**, Mayton discloses the method of claim 3, wherein each of the

pluralities of first and second individual performance tests are performed at roughly periodic intervals over the extended time duration. (see col. 3, lines 25-32: tests are performed at periodic intervals)

**Regarding Claims 5, 18**, Mayton discloses the method of claims 1, 16, wherein the first path transverses a first access network, a first transport network, and a second access network; and the second path transverses the first access network, a second transport network, and the second access network. (see col. 8, lines 57-63: multiple transport protocols (TCP and RTP) utilized in generating performance test data)

**Regarding Claims 6, 19, 24, 27**, Mayton discloses the method of claims 1, 16, 23, further comprising receiving a scheduling request representing the first and second performance tests. (see col. 3, lines 16-22: perform tests based on a schedule)

**Regarding Claim 7**, Mayton discloses the method of claim 6, wherein the scheduling request is received by a scheduling system; and the scheduling system communicates a first indication of the request to the first device. (see col. 11, lines 34-40: test scheduler communicates schedule information to endpoint nodes (first and second network devices))

**Regarding Claim 8**, Mayton discloses the method of claim 7, wherein the scheduling system further communicated a second indication of the request to the second device.

(see col. 11, lines 34-40: test scheduler communicates schedule information to endpoint nodes (first and second network devices))

**Regarding Claims 9, 20**, Mayton discloses the method of claims 6, 19, further comprising scheduling the first and second performance tests based on the scheduling request and a random time component. (see col. 14, lines 49-52; col. 8, lines 52-57: tests are performed at random based on exception events)

**Regarding Claim 13**, Mayton discloses the method of claim 6, further comprising determining whether a number of scheduled tests exceeds a first threshold number for the first device or exceeds a second threshold number for the second device. (see col. 6, line 66 - col. 7, line 3: threshold values are utilized)

**Regarding Claim 15**, Mayton discloses a computer readable medium containing computer executable instructions for performing the method of claim 1. (see col. 5, lines 6-18: performance test system can be implemented as computer program product)

**Regarding Claim 21** (Currently Amended), Mayton discloses a network comprising:

a) a first device coupled to a first access network; a first access network coupled to a first and a second transport networks; (see col. 9, lines 38-41; col. 8, lines 62-63: one or more transport protocols (i.e. TCP, UDP, RTP) utilized for network communications)

b) a second access network coupled to the first and the second transport networks; (see col. 9, lines 38-41; col. 8, lines 62-63: one or more transport protocols (i.e. TCP, UDP, RTP) utilized for network communications) and

c) a second device coupled to the second access network; wherein a performance test of each of the first and second transport networks is conducted between the first device and the second device over each of the first and second transport networks simultaneously or within a close time proximity. (see col. 3, line 66 - col. 4, line 5; col. 3, lines 48-54: network performance measurements for one or more paths (i.e. communications utilizing one or more transport paths) between two network devices)

**Regarding Claim 22**, Mayton discloses the network of claim 21, wherein the first device is coupled to a first router, wherein the first router selectively routes performance testing packets received from the first device over a first path to the first transport network and a second path to the second transport network. (see col. 8, lines 57-63: communications implemented utilizing multiple transport protocols (TCP and RTP))

**Regarding Claim 23**, Mayton discloses the network of claim 21, further comprising a performance test scheduler. (see col. 11, lines 34-40: test scheduler coordinates performance testing)

**Regarding Claim 25**, Mayton discloses the network of claim 24, further comprising a results collector for receiving a set of results associated with the performance test. (see

col. 6, lines 6-12; col. 6, lines 21-24: performance data stored)

**Regarding Claim 26**, Mayton discloses the network of claim 25, wherein the results collector transmits at least a subset of the set of results to the client device. (see col. 8, lines 32-35: endpoint nodes (client: network devices) analyze performance data)

**Regarding Claim 28**, Mayton discloses the network of claim 27, wherein the performance test scheduler communicates a second scheduling instruction associated with the performance test to the second device. (see col. 3, lines 16-22: scheduling information transmitted to endpoint nodes (first and second network devices)

**Regarding Claim 29**, Mayton discloses the network of claim 28, wherein the second device includes a test mode; and wherein the second device enters the test mode in response to receiving the second scheduling instruction. (see col. 3, lines 16-22: second network devices used in generation of performance data)

5. Claims **10, 11, 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Mayton** in view of **Silva** (US Patent No. 6,360,268).

**Regarding Claim 10**, Mayton discloses a performance test scheduler between a first and second network device. (see Mayton col. 3, line 66 - col. 4, line 9) Mayton does not disclose the capability to determined whether the scheduling request is authorized.

However, Silva discloses the method of claim 6, further comprising determining whether the scheduling request is authorized. (see Silva col. 7, lines 10-14: determine if user has permission to perform test)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Mayton to determine whether a scheduling request was authorized as taught by Silva. One of ordinary skill in the art would be motivated to employ Silva in order to maximize efficiency for test scheduling in the generation of network communication performance metrics. (see Silva col. 1, lines 44-48: *" ... maximize efficiency in the handling of test scheduling and test execution ... automate ... testing by using a server to manage test machines and to allocate test packages ... in accordance with a schedule ... "*)

**Regarding Claim 11**, Mayton discloses a performance test scheduler between a first and second network device. Mayton does not disclose the capability to determined whether the scheduling request is not authorized. However, Silva discloses the method of claim 10, further comprising indicating that the scheduling request is not authorized. (see Silva col. 7, lines 10-14; col. 12, lines 38-47: determine if user has permission to perform test)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Mayton to indicate whether a scheduling request was not authorized as taught by Silva. One of ordinary skill in the art would be motivated to employ Silva in order to maximize efficiency for test scheduling in the generation of

network communication performance metrics. (see Silva col. 1, lines 44-48)

**Regarding Claim 14**, Mayton discloses a performance test scheduler between a first and second network device. Mayton does not disclose the capability to indicate a failed scheduling request. However, Silva discloses the method of claim 13, further comprising indicating a failed scheduling request. (see Silva col. 7, lines 10-14; col. 12, lines 38-47: determine if user has permission to perform test)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Mayton to indicate a failed scheduling request as taught by Silva. One of ordinary skill in the art would be motivated to employ Silva in order to maximize efficiency for test scheduling in the generation of network communication performance metrics. (see Silva col. 1, lines 44-48)

6. Claims **12** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Mayton** in view of **Zhuo** (US Patent No. 20030036865).

**Regarding Claim 12**, Mayton discloses the method of claim 6, further comprising determining whether the scheduling request conflicts with a second scheduling request. (see Zhuo paragraph [0063], lines 14-27: test parameters for scheduling request in conflict)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Mayton to determine test scheduling conflicts as taught by Zhuo.

One of ordinary skill in the art would be motivated to employ Zhuo in order to optimize the efficient coordination for test scheduling in the generation of network communications performance metrics. (see Zhuo paragraph [0007], lines 9-11: " ... *methods and systems for timely and efficient coordination and conduct of remote equipment tests would be desirable ...* ")

***Conclusion***

**7. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kyung H. Shin whose telephone number is (571) 272-3920. The examiner can normally be reached on 9 am - 7 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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